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IBM CORPORATION, INTELLECTUAL PROPERTY LAW  
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3605 HIGHWAY 52 NORTH  
ROCHESTER, MN 55901-7829

EXAMINER
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MERCHANT, SHAHID R

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3694

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PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* WILLIAM T. NEWPORT

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Appeal 2009-004688  
Application 10/824,055  
Technology Center 3600

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Decided: February 18, 2010

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Before, MURRIEL E. CRAWFORD, ANTON W. FETTING and JOSEPH  
A. FISCHETTI, *Administrative Patent Judges*.

FISCHETTI, *Administrative Patent Judge*.

DECISION ON APPEAL

## STATEMENT OF THE CASE

Appellant seeks our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 1-20. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

## SUMMARY OF DECISION

We AFFIRM-IN-PART.

## THE INVENTION

Appellant claims a system and method for processing securities orders in an exchange and, more particularly, to techniques and systems for scaling order processing capacity on demand. (Specification 1:¶[0001])

Claims 1 and 12, reproduced below, is representative of the subject matter on appeal.

1. (Previously Presented) A computer-implemented method for dynamically scaling order processing in a securities exchange, comprising:  
maintaining one or more books for a security at the securities exchange, wherein the one or more books each list orders related to the security;  
monitoring a volume of orders related to the security received at the securities exchange;  
varying the number of books maintained for the security based on the monitored volume of orders;  
distributing orders related to the security and received at the securities exchange among the books maintained for the security; and  
balancing the monitored order volume among the books.

12. (Previously Presented) A computer-readable medium containing a program for dynamically scaling order processing in a securities exchange which, when executed by a processor performs operations, comprising:  
maintaining one or more books for a security at the securities exchange, wherein the one or more books each list orders related to the security;  
monitoring a volume of orders related to the security received at the securities exchange;  
varying the number of books maintained for the security based on the monitored volume of orders; and  
distributing orders related to the security and received at the securities exchange among the books maintained for the security, wherein the program is configured to balance the monitored order volume among the books.

#### THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Hughes	US 2003/0225673 A1	Dec. 4, 2003
Serkin	US 2003/0229567 A1	Dec. 11, 2003

The following rejection is before us for review.

The Examiner rejected claims 1-20 under 35 U.S.C. § 102(e) as being anticipated by Serkin.

## ISSUE

Has Appellant shown that the Examiner erred in rejecting claims 1-20 on appeal as being anticipated under 35 U.S.C. § 102(e) by Serkin on the grounds that in order for Serkin to anticipate, there must be a disclosure of more than a human who conducts monitoring of orders and varying the number of books maintained for the security based on the monitored orders because claims 12-20 require computer software to accomplish these steps?

## PRINCIPLES OF LAW

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 827 (1987).

Field of use recitations are typically found in the preamble of claims, and the weight given them largely depends on how the recitation is subsequently used in the body of the claim. *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 1306, 51 USPQ2d 1161, 1165-66 (Fed. Cir. 1999). Whether a preamble statement that the “patent claims a method of or apparatus for...[x] is not merely a statement describing the invention’s intended field of use ... [depends upon if] that statement is intimately meshed with the ensuing language in the claim.” *Id.* at 1306, 51 USPQ2d at 1161. In other words, “if the preamble merely state[s] a purpose or intended use and the remainder of the claim completely defines the invention independent of

the preamble,” it does not constitute a limitation. *Lipscomb’s Walker on Patents*, 3<sup>rd</sup> Edition, Vol. 3, § 11.11 at p. 361 (citing *Marston v. J.C. Penney Co.*, 353 F.2d 976, 986, 148 USPQ 25, 33 (4<sup>th</sup> Cir. 1965)); *see also*, *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997); *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257, 9 USPQ2d 1962, 1966 (Fed. Cir. 1989) (An element initially recited in the preamble, is thereafter fully incorporated into the body of the claim so as to breathe life and breath into it by setting forth the complete combination).

#### FINDINGS OF FACT

We find the following facts by a preponderance of the evidence:

1. Serkin discloses

...an order routing system 10 that directs received orders, for buying or selling securities 12, to a securities processor (e.g., securities processor 14) that is assigned to a specific security. ... The securities processor processes the security order and effectuates the trading of the security. By assigning certain securities to certain securities processors, a single securities processor is not required to process all of the orders handled by the computerized trading system 16. Accordingly, load balancing of the individual securities processors within the system can be controlled and the overall efficiency and throughput of the system is enhanced.

(¶ [0031])

2. Serkin discloses using an order book associated with each securities processor such that “order 12 pertains to one-hundred shares of XYZ Corp. that Market Participant A wishes to purchase for \$17.00 per share. This order, which represents a bid-to-buy XYZ Corp. is entered into the order book (not shown) for securities processor 12 for subsequent matching with a corresponding offer-to-sell XYZ Corp.” (§ [0041])

3. Serkin discloses that an administrator monitors and varies the number of books maintained for the security based on the monitored volume of orders such that: “bigger well-know securities tend to be traded at higher volumes than smaller less-known securities. Accordingly, administrator 62 may assign one or more of their highest volume securities to a single securities processor, such that another securities processor handles all the remaining securities.” (§ [0046])

4. Serkin discloses a reconfigurable look-up table using the administrator to reassign definitions as trading trends vary.

For example, assume that XYZ Corp. is the highest traded stock handled by computerized trading system 16 and, therefore, administrator 62 only assigned XYZ Corp. to the first of the six securities processors, such that the second through the sixth securities processors handle the trades of all other securities traded on the system 16. If, over time, XYZ Corp. starts to trade less frequently and ABC Corp. (another security traded on computerized trading system 16) becomes the highest traded security, administrator 16 could easily reassign XYZ Corp. so that it is processed

by any of securities processors two through six,  
thus freeing up the first securities processor to  
exclusively process trades of ABC Corp.

(¶ [0046])

5. Serkin discloses that “[s]ince additional securities processors can be added to system 10 to accommodate higher trade volumes, computerized trading system 10 is scalable.” (¶ [0047]).

### ANALYSIS

We affirm the rejection of claims 1-11, reverse as to claims 12-20.

#### *Claims 1-11*

We first turn to the scope of claim 1 and the limits of the preamble in particular. The preamble of claim 1 recites: “[a] *computer-implemented method for dynamically scaling order processing in a securities exchange, comprising: ....*” Appellant in advancing arguments against Serkin maintains that the preamble constitutes a positive limitation in the claims and thus distinguishes over the prior art because Serkin fails to use a computer implemented method to accomplish such steps as, monitoring and varying the number of books maintained for the security. (Appeal Br. 12)

We disagree with Appellant because after the introduction of the term “computer-implemented” in the preamble, the claim fails to reference the term again. As such, we find that claim 1 does not thereafter fully incorporate “computer-implemented” into the body of the claim so as to breathe life and breath into it. *See Corning Glass Works v. Sumitomo Elec.*



*U.S.A., Inc.*, 868 F.2d 1251, 1257 (Fed. Cir.1989).

Accordingly, we analyze claim 1 without reading “computer-implemented” as a limitation. We note that the Appellant argues claims 1-11 together as a group. Correspondingly, we select representative claim 1 to decide the appeal of these claims, remaining claims standing or falling with claim 1.

We find that Serkin discloses monitoring a volume of orders related to the security received at the securities exchange; and varying the number of books maintained for the security based on the monitored volume of orders, as required by claim 1 (FF 1, 3-5). Appellant argues that such steps cannot constitute anticipation because “Serkin discloses that an ‘administrator’ may manually adjust the configuration of a system (*sic* to) adjust the number of ‘securities processors.’” (Appeal Br. 12) However, since our interpretation of claim 1 leaves the preamble recitation “computer-implemented” out of the limitations of the claim for the reasons set forth above, Appellant’s argument as to the failure of Serkin to disclose a “computer-implemented” process which effects these steps is thus not persuasive.

Appellant further argues that:

[t]he ‘securities processors’ does [(*sic* do)] not provide the equivalent of the claimed “one or more books for a security at the securities exchange, wherein the one or more books each list orders related to the security.” Instead, ‘the ‘securities processor’ provides a processing component assigned to a given security and configured to identify and process orders for that security.

(Appeal Br. 11)

We disagree with Appellant. We find that each security processor is associated with a book for a security in that Serkin discloses an order is entered into the order book for each securities processor 12 (FF 2). Thus, we find that Serkin's disclosure of monitoring a volume of orders related to the security received at the securities exchange and varying the number of security processors maintained for the security based on the monitored volume of orders, inherently discloses that the books associated with each of these processors are also varied.

We therefore sustain the rejection of claims 1-11 under 35 U.S.C. § 102(e).

*Claims 12-20*

Claim 12 is drawn to a computer-readable medium containing a program which performs the computer operations enumerated in the body of claim 12, and claim 17 is drawn to a computer system with a memory configured to perform operations enumerated in the body of the claim 17. As found supra, we find that the steps of monitoring and varying books is accomplished by a human administrator and not through software which drives computer system (FF 1, 3-5). The rejection at hand was made under 35 U.S.C. § 102(e). Accordingly, we cannot find each and every element as set forth in the claims, namely, software which effects the recited steps of monitoring and varying books of securities. Accordingly, we do not sustain the rejection of claims 12-20 under 35 U.S.C. § 102(e).

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### CONCLUSIONS OF LAW

We conclude the Appellant has not shown that the Examiner erred in rejecting claims 1-11 as anticipated under 35 U.S.C. § 102(e).

We conclude the Appellant has shown that the Examiner erred in rejecting claims 12-20 as anticipated under 35 U.S.C. § 102(e).

### DECISION

The decision of the Examiner to reject claims 1-11 is AFFIRMED.

The decision of the Examiner to reject 12-20 is REVERSED.

### AFFIRMED-IN-PART

MP

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